ABSTRACT

A mixing apparatus comprises a plurality of reactors/reaction vessels controlled by a single graphical user interface. Each of the reactor modules is independent and may be used as such. A magnetic impeller is located inside each reaction vessel, the impeller having a magnet integrated into the profile. External magnets are located radially outside of the wall of each reaction vessel. Rotational motion is provided to these external magnets thereby inducing the internal magnetic impellers to rotate and induce mixing/agitation to the reaction vessel contents. The usage of strong external magnets enables strong magnetic coupling to the internal impeller enabling mixing of normally difficult to mix contents. The ability to adjust the vertical location of the external magnets further enhances functional ability enabling optimized location of the internal magnet for the specific volume/vessel content mixtures combinations.